2023 ALZHEIMER'S DISEASE FACTS AND FIGURES

SPECIAL REPORT

THE PATIENT JOURNEY IN AN ERA OF NEW TREATMENTS

ALZHEIMER'S ASSOCIATION®

Prevalence Estimates

The prevalence numbers included in this report are based on an estimate of how many people in the United States are living with Alzheimer's dementia (prevalence) and the pace at which people newly develop the condition (incidence).

The estimate of 6.7 million older adults who have Alzheimer's dementia comes from a single longitudinal study in which participants were systematically evaluated and then re-evaluated on a regular basis; those who exhibited the clinical symptoms of Alzheimer's were classified as having Alzheimer's dementia. A major advantage of this approach is that it attempts to capture all individuals living with the condition and does not rely on the diagnosis of people living with Alzheimer's by the health care system, a process that has resulted in a large underdiagnosis of the Alzheimer's population. The disadvantage is that the longitudinal study is located in a single, small geographic area and may not be nationally representative (although the modeling estimates attempt to account for the demographics of the entire U.S. population). In the future, this report could use data from multiple longitudinal studies using different symptom-based diagnostic criteria; these differences in criteria could result in different prevalence estimates from what we report here.[A3,149]

Almost all existing Alzheimer's dementia prevalence studies are based on the identification of clinical symptoms to classify an individual as having Alzheimer's dementia; they do not rely on the brain changes believed to be responsible for Alzheimer's disease across the continuum of the disease. As data sources, methods and scientific knowledge improve, estimates of prevalence may incorporate these brain changes. This addition could lead to very different prevalence estimates for a number of reasons, which are discussed below.

Prevalence Estimates of Dementia Due to Alzheimer's Disease Based on Biomarkers and Dementia Symptoms

First, a prevalence estimate of *dementia due to Alzheimer's disease* based on Alzheimer's brain changes, as well as overt clinical dementia symptoms, is likely to be lower than the 6.7 million figure reported here. This is because biomarker-based studies[21,71,224-226] indicate that some individuals counted as having Alzheimer's dementia based on symptoms do not have the biological brain changes of Alzheimer's disease; that is, their dementia is caused by something other than Alzheimer's disease. Both autopsy studies and clinical trials have found that 15% to 30% of individuals who meet the criteria for clinical Alzheimer's dementia based on symptoms did not have Alzheimer's-related brain changes. Thus, these studies indicate that, compared with prevalence estimates based only on symptoms, estimates using biomarkers of Alzheimer's disease could be up to 30% lower than current figures. This would translate to roughly 4.7 million Americans age 65 and older being classified as having dementia due to Alzheimer's disease in 2023.[A3,149]

Prevalence Estimates of Alzheimer's Disease Based on Biomarkers and any Cognitive Symptoms (Mild to Severe)

Second, as measurements of the brain changes of Alzheimer's disease become more widely available in studies, we will be able to estimate how many people have *Alzheimer's disease* (not just dementia due to Alzheimer's disease). This estimate would include people with the earliest detectable stages of cognitive impairment who have the brain changes of Alzheimer's but not the overt symptoms of dementia that interfere with their ability to carry out everyday activities. For decades it has been recognized that all individuals with dementia pass through a precursor stage frequently referred to as mild cognitive impairment (MCI; see Overview, page 4). More recently, with the advent of biomarkers that detect the brain changes believed to characterize Alzheimer's disease, it is now possible to determine which individuals diagnosed with MCI have *MCI due to Alzheimer's disease*. As biomarker-based diagnoses become more common, individuals with MCI due to Alzheimer's disease will be included in prevalence estimates of the number of Americans with Alzheimer's disease, which will result in a larger number than the number of Americans with Alzheimer's dementia. As reported in this section, using the best data available, an estimated 5 to 7 million Americans age 65 and older have MCI due to Alzheimer's disease. Combined with the roughly 4.7 million Americans age 65 and older with dementia due to Alzheimer's disease based on Alzheimer's brain changes, this would translate to approximately 10 to 12 million older Americans with Alzheimer's disease and some form of cognitive symptoms in 2023. Because MCI develops years before dementia onset and can affect individuals younger than 65, there are likely more than 5 to 7 million people of any age with MCI due to Alzheimer's disease, and thus this number could be even higher for all ages.

Prevalence of Alzheimer's Disease Across the Entire Cognitive Spectrum

Finally, the National Institute on Aging – Alzheimer's Association (NIA-AA) Framework[227] hypothesizes that there is an incipient and silent (i.e., "preclinical") stage of Alzheimer's disease before the emergence of cognitive